



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0727; Directorate Identifier 2012-NM-012-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes. This proposed AD was prompted by reports of fatigue cracks found in Stringer 11 at the outboard flap, inboard drive hinge at Station Xrs=164.000. This proposed AD would require repetitive inspections for cracks in Stringer 11, and a splice repair if necessary; and repetitive post-repair inspections, and repair if necessary. We are proposing this AD to detect and correct such cracking, which could result in the wing structure not supporting the limit load condition, which could lead to loss of structural integrity of the wing.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Roger Durbin, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, California 90712-4137; phone: (562) 627-5233; fax: (562) 627-5210; e-mail: roger.durbin@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0727; Directorate Identifier 2012-NM-012-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received reports of fatigue cracks found in Stringer 11 at the outboard flap, inboard drive hinge at Station Xrs=164.000. The cracking occurred at the end fastener of the wing bulkhead clip attachment to the stringer. If undetected, a crack in the stringer may grow until the stringer severs, initiating a crack in the wing lower skin. This condition, if not corrected, could result in the wing structure not supporting the limit load condition, which could lead to loss of the structural integrity of the wing.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin MD80-57A243, dated December 20, 2011. The service information describes procedures for repetitive in-tank eddy current high frequency (ETHF) inspections for cracks in Stringer 11 at the outboard flap, inboard drive hinge at Station Xrs=164.000, and a splice repair if necessary; and repetitive post-repair inspections, and repair if necessary.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between the Proposed AD and the Service Information.”

Differences Between the Proposed AD and the Service Information

The service bulletin specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 502 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	13 work-hours X \$85 per hour = \$1,105 per inspection cycle	None	\$1,105 per inspection cycle	\$554,710 per inspection cycle
Post-repair inspection	13 work-hours X \$85 per hour = \$1,105	None	\$1,105	\$554,710

We estimate the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this repair:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Splice repair per wing	93 work-hours X \$85 per hour = \$7,905	\$17,759	\$25,664

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions of the post-repair inspection specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2012-0727; Directorate Identifier 2012-NM-012-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87), and MD-88 airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin MD80-57A243, dated December 20, 2011.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by reports of fatigue cracks found in Stringer 11 at the outboard flap, inboard drive hinge at Station Xrs=164.000. We are issuing this AD to detect and correct such cracking, which could result in the wing structure not supporting the limit load condition, which could lead to loss of structural integrity of the wing.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Inspections

Before the accumulation of 19,000 total flight cycles, or within 8,710 flight cycles after the effective date of this AD, whichever occurs later: Do an in-tank eddy current high frequency (ETHF) inspection for cracks in Stringer 11 at the outboard flap, inboard drive hinge at Station Xrs=164.000, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-57A243, dated December 20, 2011. If no cracking is found, repeat the inspection thereafter at intervals not to exceed 29,000 flight cycles.

(h) Splice Repair

If any cracking is found during the inspection required by paragraph (g) of this AD: Before further flight, do a splice repair, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-57A243, dated December 20, 2011.

(i) Post-Repair Inspection

Within 60,000 flight cycles after doing the splice repair specified in paragraph (h) of this AD: Do an ETHF inspection for cracks in Stringer 11 at the outboard flap, inboard drive hinge at Station Xrs=164.000, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-57A243, dated December 20, 2011. Repeat the inspection thereafter at intervals not to exceed 29,000 flight cycles. If any crack is found: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by The Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO to make those findings. For a repair method to be approved, the repair

must meet the certification basis of the airplane, and 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

(k) Related Information

(1) For more information about this AD, contact Roger Durbin, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, California 90712-4137; phone (562) 627-5233; fax (562) 627-5210; e-mail: roger.durbin@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington on July 23, 2012.

Kalene C. Yanamura,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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